

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number Q59609	
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	Filed	
	09/598,896	June 22, 2000	
	First Named Inventor		
	Jose Luis GONZALEZ DE PRADO		
	Art Unit	Examiner	
	2616	Kevin D. MEW	
<p style="text-align: center;">WASHINGTON OFFICE <b>23373</b> CUSTOMER NUMBER</p>			
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal</p> <p>The review is requested for the reasons(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p><input checked="" type="checkbox"/> I am an attorney or agent of record.</p> <p>Registration number    28,703</p> <p style="text-align: right;">_____/DJCushing/ Signature</p> <p style="text-align: right;">_____ David J. Cushing Typed or printed name</p> <p style="text-align: right;">_____(202) 293-7060 Telephone number</p> <p style="text-align: right;">_____ April 5, 2007 Date</p>			

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q59609

Jose Luis GONZALEZ DE PRADO

Appln. No.: 09/598,896

Group Art Unit: 2616

Confirmation No.: 8570

Examiner: Kevin D. MEW

Filed: June 22, 2000

For: METHOD AND SYSTEM FOR MULTIPLE ACCESS IN A RADIOCOMMUNICATION  
SYSTEM

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to the new Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated October 5, 2006, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

In the final Office action dated October 5, 2006, the examiner objected to the claims based on editorial matters, and rejected the claims over prior art. In an amendment filed March 5, 2007, applicant amended the claims editorially to address the claim objections. The following discussion is directed to the prior art rejections.

As described in the Background discussion of the present application, a base station may communicate with the various mobile units within its cellular coverage area using TDMA. In addition to the data bursts that are transmitted in the uplink direction, each mobile will transmit to the base station signaling information relating to communications already established and to

communications the mobile may wish to establish. For this purpose, within the TDMA frame, there are one or more time slots that have to be shared by all of the mobile units for their signaling information. The most common way of handling this is to assign each mobile station a usage time within the slot(s), but a mobile unit maintains its assigned usage time even if it does not have any signaling information to send, and on the other hand a station that has several messages to send may have to wait for successive assigned times even though other times are being essentially wasted by filler information.

Thus, in a conventional arrangement, there are N remote units each assigned a respective time slot. The present invention seeks to improve on the efficiency of this by providing fewer time slots than there are remote units, and having the time slots shared on a demand assignment basis. In other words, a mobile station will use an assigned time when it needs to send signaling information, but then give up its assigned time and let others use it. The way this is done according to the present invention is to establish a set of "virtual identities" which maintain the one to one correspondence with the signaling time slots. An important feature of the invention is the use of a virtual identity only for the duration of a message and thereafter releasing the virtual identity. A further improvement according to the present invention is that the number of virtual identities, and therefore time slots, is dynamically varied in accordance with signaling load.

The primary reference relied on by the examiner is Cheng (USP 5,563,883). The Background discussion of Cheng mentions that it was well-known to dynamically adjust the number of traffic bearing channels according to traffic demands. The patentee recognizes that the availability of traffic bearing channels is not the only issue, but also the responsiveness of the

signaling channel. Synchronization amongst the various stations is too difficult in a CATV system, so a polling technique was commonly used. But the polling technique is wasteful because it results in a lot of interaction with terminals not in need of servicing. So the solution provided by Cheng is dynamic allocation of both data and signaling channels. Cheng does this with a modified "polling" approach. The central station initiates polling on the signaling channel to simultaneously solicit transmission from a plurality of remote stations, and then only if a contention occurs the central station will proceed with a selective polling.

Neither Cheng nor any of the other prior art of record address the issue of "virtual identities." However, the examiner has adopted a broad interpretation of "virtual identity," such that the channel FD-1 itself in Cheng to be a virtual identity. In rejecting claims 18-23, the examiner again takes the position that the term "virtual identity" reads on a signaling channel in Cheng. But this is incorrect. Cheng has a set of signaling channels RD-1, RD-2, RD-n, but these are not virtual identities. Each of these signaling channels is used by plural remote stations on a multiple access basis. See, e.g., lines 41-43 of column 7. Lines 3-8 of page 2 of the present specification explain that a channel is shared amongst plural stations by having each station transmit in the channel during a respective time slot. Claim 1 recites a signaling channel as being shared on a multiple access basis by a plurality of virtual identities, so the examiner cannot read the claimed virtual identities on the signaling channels of Cheng. In the present invention, the time slots are associated with virtual identities. The signaling channels are what the virtual identities share.

The paragraph bridging pages 1 and 2 of the present application describes the remote units as sharing time slots in an inflexible manner depending on the identity of each station. The solution provided by the present invention is to use virtual identities instead of actual identities to share the time slots. Cheng does not discuss this concept at any time. The variation in the number of signaling channels in Cheng is modifying the channels which the virtual identities must share, but it is not modifying the number of virtual identities as that term is used in the present claims.

In the discussion bridging pages 4-5 of the Office action of October 5, 2006, the examiner refers to lines 58-67 of column 5 and lines 1-14 of column 6 and Fig. 2 of Cheng as support for the dynamic variation of the number of virtual identities, but the examiner has misread these passages of Cheng. Cheng points out that there are *a* information channels (D-channels) in the forward direction and *c* D-channels in the reverse direction, and there are *b* signaling channels (B-channels) in the forward direction and *d* B-channels in the reverse direction. There is no discussion of having the system change the value of *a*.

The secondary references relied on by the examiner do not make up for the deficiency in Cheng. There is no obvious combination of the teachings of the cited references which would have led to a system which dynamically varies the number of signaling channels and dynamically allocates remote units to those signaling channels, as is required in claims 1 and 8.

Claim 18 is allowable due to its dependence on claim 1. In addition, as discussed above, the load management technique used by Cheng is to reassign remote units to different signaling channels to balance out the load of remote units handled by each signaling channel. This

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concept of having multiple remote units using a single signaling channel is reflected throughout the Cheng specification, e.g., at lines 36-37 of column 8. Thus, the cited art does not teach or suggest having each virtual identity when in use send signaling information with respect to a single one of said remote units, as recited in claim 18.

Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

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/DJCushing/  
David J. Cushing  
Registration No. 28,703